

ABSTRACT OF THE DISCLOSURE

A controllable microscopic bubble nucleation in fluid polymer material production method and apparatus utilizing a gas pipe disposed in the conveyance screw shaft of an injection or extraction forming mechanism and a microbubble generating component, such as a microscopic perforation vented metal head or a microscopic perforation ceramic head, installed at the front extremity of the conveyance screw shaft. At the rear extremity of the gas pipe, a pressurization pump or a high pressure gas storage tank is admitted from an air intake opening, enabling the gas to be indirectly heated by an electric heater on the materials pipe. The high temperature gas is thereafter outputted from the microscopic perforations of the microbubble generating component such that high temperature microscopic bubbles are directly admitted into the section of liquid polymer material which is then uniformly amalgamated by the conveyance screw shaft and then deposited into a forming die.